

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: ROMAN SCHERTLER  
Serial No.: 08/962,776                      Group Art Unit: 3206  
Filed: NOVEMBER 3, 1997                      Examiner: K. NGUYEN  
Title: A VACUUM PROCESS APPARATUS

**AFTER-FINAL REPLY UNDER 37 CFR § 1.116**  
**EXPEDITED HANDLING REQUESTED**

Box AF  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

RECEIVED  
JAN 03 2003  
TECHNOLOGY CENTER R3700

In response to the Office Action mailed on or about June 28, 2002, applicants hereby surrender original Letters Patent No. 5,245,736. An executed Third Supplemental Declaration was submitted on July 9, 2002 and acknowledged by the Examiner in the Advisory Action mailed on or about July 23, 2002.

All rejections are now deemed fully addressed; accordingly, favorable action and early allowance are requested.

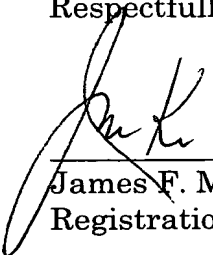
If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

please charge any deficiency in fees or credit any overpayments to Deposit  
Account No. 05-1323 (Docket #622/40901CO).

Respectfully submitted,

September 27, 2002



---

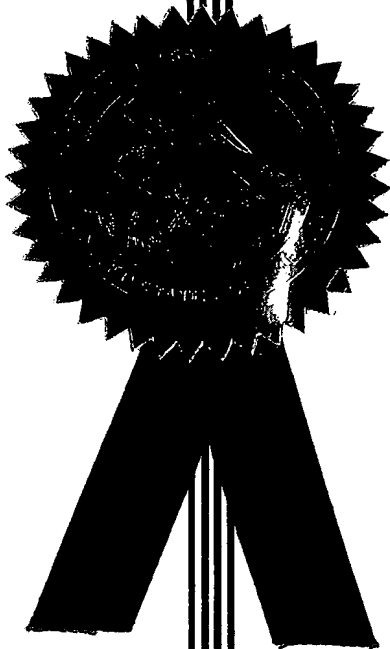
James F. McKeown  
Registration No. 25,406

CROWELL & MORING, LLP  
P.O. Box 14300  
Washington, DC 20044-4300  
Telephone No.: (202) 624-2500  
Facsimile No.: (202) 628-8844

JFM/acd  
80310.031



# The United States of America



## The Commissioner of Patents and Trademarks

*Has received an application for a patent  
for a new and useful invention. The title  
and description of the invention are en-  
closed. The requirements of law have  
been complied with, and it has been de-  
termined that a patent on the invention  
shall be granted under the law.*

*Therefore, this*

## United States Patent

*Grants to the person or persons having  
title to this patent the right to exclude  
others from making, using or selling the  
invention throughout the United States  
of America for the term of seventeen  
years from the date of this patent, sub-  
ject to the payment of maintenance fees  
as provided by law.*

*Bence Lehman*

Commissioner of Patents and Trademarks

*Linda P. Elliott*

*Attest*

RECEIVED  
JAN 03 2003

TECHNOLOGY CENTER R3706



US005245736A

**United States Patent** [19]**Schertler**[11] **Patent Number:** **5,245,736**[45] **Date of Patent:** **Sep. 21, 1993**[54] **VACUUM PROCESS APPARATUS**[75] **Inventor:** Roman Schertler, Wolfurt, Austria[73] **Assignee:** Balzers Aktiengesellschaft,  
Liechtenstein, Liechtenstein[21] **Appl. No.:** 888,111[22] **Filed:** May 26, 1992[30] **Foreign Application Priority Data**

May 31, 1991 [DE] Fed. Rep. of Germany ..... 4117969

[51] **Int. Cl.:** B23B 15/00; B25B 11/00[52] **U.S. Cl.:** 29/33 P; 29/563;  
29/559; 269/21[58] **Field of Search** 29/33 P, 563, 559;  
269/21, 57, 61; 279/3[56] **References Cited****U.S. PATENT DOCUMENTS**3,915,117 10/1975 Schertler ..... 118/719 X  
4,652,135 3/1987 Ono ..... 269/21 X**FOREIGN PATENT DOCUMENTS**0136562 2/1983 European Pat. Off. .  
0161927 11/1985 European Pat. Off. .  
0389820 3/1990 European Pat. Off. .0130144 6/1987 Japan ..... 269/21  
0973293 11/1982 U.S.S.R. .... 269/21*Primary Examiner*—Joseph M. Gorski  
*Assistant Examiner*—Khan V. Nguyen  
*Attorney, Agent, or Firm*—Evenson, McKeown,  
Edwards & Lenahan[57] **ABSTRACT**

The invention proceeds from a vacuum process apparatus for an article which is processed or treated, resp. at two stations, whereby each station has a charging and/or removing opening for the article. A transporting device is supported for rotation and includes a supporting portion which is successively moved onto the openings of the stations. The process plant is designed in such a manner that the surface normals determined by the surfaces of the openings and the space axis defined by the axis of rotation of the transport device do not run parallel and rather enclose together an angle of 90° or 45°. By such an arrangement it is possible to design extremely compact vacuum vapor deposition apparatuses having a plurality of individual stations, whereby additionally short transporting distances are obtainable and the volumes to be conditioned can be minimized.

**29 Claims, 5 Drawing Sheets**